WHAT IS CLAIMED IS:

1. A method of transmitting an arbitrary datum over a channel and for sending a signal over the channel comprising the steps:

(a) modulating a carrier of the channel by a modulation scheme for transmitting the arbitrary datum; and

(b) modifying said carrier by a modification scheme for sending the signal.

2. The method of claim 1, wherein said modulation scheme includes transmitting a plurality of consecutive symbols at a symbol rate and said modification scheme includes modifying said carrier at a modification rate, said modification rate being higher than said symbol rate.

3. The method of claim 1, wherein said modulation scheme includes transmitting a plurality of consecutive symbols at a symbol rate and said modification scheme includes modifying said carrier at a modification rate, said modification rate being lower than said symbol rate.

4. The method of claim 1, wherein said step of modulating is effected according to a modulation scheme selected from the group consisting of BPSK, QPSK, AM, FM, CDMA.

5. The method of claim 1, wherein said step of modifying is effected according to a modification scheme selected from the group consisting of shifting a phase, shifting an amplitude, and shifting a frequency.

6. The method of claim 1, wherein the signal is used to communicate at least one message selected from the group consisting of an intention to transmit, an end of transmission, a congestion condition, an instruction to turn on a device, and instruction to turn off a device a request to retransmit and dominant and recessive statuses.

7. The method of claim 1, wherein said carrier is conveyed by at least one medium selected from group consisting of a utility power line, a DC power line, a dedicated communication wire, a fiber optic cable, a radio wave, an ultra sonic wave and magnetic field.

8. The method of claim 1, wherein said modulating and said modifying are effected substantially simultaneously.

9. The method of claim 1, further comprising the step:

c) altering said modification scheme to adjust the probability of signaling errors.

10. A receiver for receiving an arbitrary datum from a channel of a communication carrier and for receiving a signal over the channel comprising:

(a) a modem for demodulating the arbitrary datum, the datum having been modulated by a modulation scheme; and

(b) a detector to detect the signal, the signal having been sent via modifications of the carrier according to a modification scheme.

11. The receiver of claim 10, wherein said modification scheme includes a pattern of modifications to the carrier, and wherein the receiver further comprises:

(c) a processor for identifying said pattern.

12. The receiver of claim 11, wherein said modulation scheme includes modulating a symbol onto the carrier over a symbol period and said pattern includes a plurality of said modifications within said symbol period.

13. The receiver of claim 11, wherein said processor includes at least one circuit selected from the group consisting of a programmable logic array device, an application specific integrated circuit, and a digital signal processor.

14. The receiver of claim 11, wherein said modulation scheme includes modulating a plurality of symbols onto the carrier at a symbol rate and said pattern includes a plurality of said modifications at a modification rate, said modification rate being higher than said symbol rate.

15. The receiver of claim 11, wherein said processor further evaluates communication performance.

16. The receiver of claim 10, wherein a pattern identification criterion is adjusted according to communication performance.

17. The receiver of claim 10, wherein said processor further adjusts a usage of a channel for an arbitrary datum transmission according to communication performance.

18. A transmitter for transmitting an arbitrary datum over a channel of a communication carrier and for sending a signal over the channel comprising:

(a) a modem for modulating the arbitrary datum according to a modulation scheme; and

(b) a signaling shifter to modify the communication carrier according to a modification scheme.

19. The transmitter of claim 18, wherein said modification scheme includes a pattern of modifications, and wherein the transmitter further comprises:

(c) a signaling pattern generator for controlling said shifter.

20. The transmitter of claim 19, wherein said modulation scheme includes modulating a symbol onto the carrier over a symbol period and said signaling pattern includes a plurality of said modifications within said symbol period.

21. The transmitter of claim 19, wherein said modulation scheme includes modulating a plurality of symbols onto the carrier at a symbol rate and said modification scheme includes a plurality of modifications at a modification rate, said modification rate being higher than said symbol rate.

22. The transmitter of claim 19, wherein said modulation scheme includes modulating a plurality of symbols onto the carrier at a symbol rate and said modification scheme includes a plurality of modifications at a modification rate, said modification rate being lower than said symbol rate.

23. The transmitter of claim 19, wherein said signaling pattern generator includes at least one processor selected from the group consisting of a programmable logic array device, an application specific integrated circuit, and a digital signal processor.

24. The transmitter of claim 19, wherein said pattern is altered to adjust the usage of a channel according to communication performance.

25. A method of signaling during communication by a plurality of devices over a plurality of channels, comprising the steps of:

(a) sending a first signal from a first device of the plurality of devices on a first channel of the plurality of channels; and

(b) listening by a second device for said signal over a subset of the plurality of channels, said subset containing said first channel and at least one other channel.

26. The method of claim 25, further comprising the step:

(c) detecting by said first device of a second signal over said at least one other channel.

27. The method of claim 25, wherein said second device includes a transmitter and said listening is for the sake of collision detection.

28. The method of claim 27, wherein said first signal is of an intention to transmit over said at least one channel.

29. The method of claim 27, further comprising the step of:

(c) resolving said collision.

30. The method of claim 29, further including the step of:

(d) assigning a signal priority level to said first signal;

and wherein said resolving is according to said signal priority level.

31. The method of claim 30, wherein a channel of said subset is associated with a channel priority level and said step of assigning said signal priority level is according to said channel priority level of said channel.

32. A method for signaling during communication by a plurality of transmitters over a plurality of channels, comprising the steps of:

(a) sending a first signal from one of the plurality of transmitters on at least one channel of the plurality of channels; and

(b) listening by said one transmitter for a second signal from a second transmitter of said plurality of transmitters over a second channel of the plurality of channels.

33. A system for testing communication amongst a plurality of devices over a medium, comprising:

(a) an adjuster to change an attribute of the medium ; and

(b) a DC power supply for supplying a DC voltage to the devices, the DC power supply being decoupled from transmissions by the devices.

34 The system of claim 33, wherein said adjuster changes at least one attribute selected from the group containing attenuation, impedance, frequency response, noise pattern, and noise level.

35. A method for testing communication between two devices via a medium, comprising the steps of:

(a) connecting the devices to the medium;

(b) adjusting an attribute of the medium;

(c) conveying a message over the medium from a first device of the devices to a second device of the devices;

(d) determining whether said message is received by said second device; and

(e) imposing a DC voltage on at least one of the devices.